

ABSTRACT OF THE DISCLOSURE

A dynamic sand drift barrier stops and accumulates sand, snow or other heavier-than-air particles suspended in moving air currents, to perform as a fence and adjust its position to maintain the operative portions above the top of the accumulated particles using energy derived from the particle and wind movement. The dynamic drift barrier is made of a horizontal Savonius windmill presenting the fence frontal area perpendicular to the prevailing wind direction. Blown particles will rotate the Savonius windmill transferring the longitudinal motion into rotational motion. Two sets of pulleys and related mechanically operative power transmission serves to translate the rotational energy into axial force-displacement energy using four slider crank arm mechanisms. Transported sand will be deposited by the Savonius windmill, and the blown sand energy will drive the four legs of the barrier vertically so that each foot will readjust its height to retain the position of the drift barrier atop the sand dune.